Request to Archive
With The National Centers for Environmental Information
For Geostationary Surface and Insolation Products (GSIP), Version 3
Provided by OSPO

2013-03-21

This information will be used by NCEI to conduct an appraisal and make a decision on the request.

1. Who is the primary point of contact for this request?

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2. Name the organization or group responsible for creating the dataset.

DOC/NOAA/NESDIS/OSDPD/SSD > Satellite Services Division, Office of Satellite Data Processing and Distribution, NESDIS, NOAA, U.S. Department of Commerce

3. Provide an overview summarizing the scope of data you want to archive. Describe the outputs, data variables, including their measurement resolution and coverage.

The GSIP Version 3 contains upwelling and downwelling shortwave (0.2-4.0 m) and visible (0.4-0.7 m) radiative fluxes at the top of the atmosphere and at the surface, cloud fraction and skin temperature. In addition to these primary products, cloud phase, visible cloud optical depth, outgoing longwave radiation, as well as byproducts (visible aerosol optical depth, composite clear, clear and cloudy reflectances) and ancillary data (total column amounts of water vapor and ozone) are also included. The products are estimated from the radiance measurements of the GOES East and West satellites for the extended northern hemispheres every hour and for the full disk every three hours at a spatial resolution of 4 km. Also used full disk data from EUMETSAT METEOSAT-10 (MSG-3) with resolution 3 km and from JAXA MTSAT-1/2 (which one is working) with resolution 4 km.

4. What is the time period covered by the dataset? (YYYY-MM-DD, YYYY-MM or YYYY)

From 2013-06-30
Ongoing as continuous updates to the data record

5. Edition or version number(s) of the dataset:

Version 3

6. Describe the level to which the data are processed. For example, are these unprocessed raw observations, derived parameters, quality controlled or inter-calibrated data, etc.?

Level 3: Derived parameters.

7. Approximate date when the dataset was or will be released to the public:

2013-06-30

8. Who are the expected users of the archived data? How will the archived data be used?
Mark Eakin (STAR)
William Skirving, Alan Strong (Coast Watch)

9. Has the dataset undergone user evaluation and/or an independent review process? Did NCEI participate in design reviews?
The data products have been validated with ground observations. The users have used them since 2009.

10. Describe the dataset's relationship to other archived datasets, such as earlier versions or related source data. If this is a new version, how does it improve upon the previous version(s)?
The data products (GSIP-v3)are updates of current GSIP-fd.

11. List the input datasets and ancillary information used to produce the data.
GOES AREA files; IMS snow files; Global Forecast System (GFS) files.

12. List web pages and other links that provide information on the data.
The parameters below are provided for each pixel at every hour. In addition to these parameters, the satellite id, date and time of satellite observation, and version numbers of algorithms and data are included in the header. Latitude and longitude coordinates of the pixel centers are provided for each of the six (east and west extended hemisphere, east and west full disks, METEOSAT and MTSAT full disks) domains.

1. Solar zenith angle
2. Sensor zenith angle
3. Relative azimuth angle
4. All-sky 0.64 mc reflectance
5. Cloudy-sky 0.64 mc reflectance
6. Clear-composite 0.64 mc reflectance
7. 6.8 mc radiance
8. 11 mc radiance
9. Clear 11 mc radiance
10. LST
11. Radiative temperature
12. Insolation QC
13. SW downward surface
14. Clear SW downward surface
15. SW downward surface, diffuse
16. SW upward surface
17. Clear SW upward surface
18. SW downward top-of-atmosphere
19. SW upward top-of-atmosphere
20. SW downward surface clear
21. SW upward surface clear
22. SW upward top-of-atmosphere clear
23. LW downward surface
24. LW upward surface
25. LW upward top-of-atmosphere
26. Visible (PAR) downward surface
27. Visible (PAR) downward surface, diffuse

28. Visible (PAR) upward surface
29. Clear visible (PAR) upward surface
30. Cloud mask
31. Cloud type
32. Cloud liquid water path
33. Cloud ice water path
34. Cloud optical depth
35. Cloud top temperature
36. Cloud top pressure
37. Total precipitable water
38. Total column ozone amount
39. Snow fraction

13. List the kinds of documents, metadata and code that are available for archiving. For example, data format specifications, user guides, algorithm documentation, metadata compliant with a standard such as ISO 19115, source code, platform/instrument metadata, data/process flow diagrams, etc.

1. Standard SPSRB ATBD and manuals are available upon request.

14. Indicate the data file format(s).

1. netCDF-3

15. Are the data files compressed?

No

16. Provide details on how the files are named and how they are organized (e.g., file_name_pattern_YYYYMM.tar in monthly aggregations).

File names are xxzzzzyyyyddd_vvv.vv.dat.gz, where
xx = a two-letter satellite designator; valid values: GE, GW, ME, MT, DA for the east and the west GOES satellites, METEOSAT-10, MTSAT-1/2, and Global Daily Average, respectively,
zzzz = domain name; valid values: NH (northern hemisphere extended), DISK (full disk), GLOB (global)
yyyy = four digit calendar year
ddd = day of year
vvv.vv = version number
The file name extension is dat; gz indicates data compression with the gzip utility.

Example: for July 1, 2007 (day 182) the following seven files will be submitted:

GENHEM2007182_001.00.dat.gz (GOES east extended northern hemisphere)
GWNHEM2007182_001.00.dat.gz (GOES west extended northern hemisphere)
GEDISK2007182_001.00.dat.gz (GOES east full disk)
GWDISK2007182_001.00.dat.gz (GOES west full disk)
MEDISK2007182_001.00.dat.gz (METEOSAT-10 full disk)
MTDISK2007182_001.00.dat.gz (MTSAT-1/2 full disk)
DAGLOB2007182_001.00.dat.gz (Global Daily Average Insolation and PAR)

17. Explain how to access sample data files and/or a file listing for previewing. If it is not available now, when will it be available?

18. What is the total data volume to be submitted?

Continuous Data: data volume rate for a continuous data production.

Total Data Volume Rate: 35GB per Day
Data File Frequency: 4 per Day
Data Production Start: 2013-06-30

19. Are later updates, revisions or replacement files anticipated? If so, explain the conditions for submitting these additional data to the archive.

The new data products will improve the reolution from 14km to 4km; and extend coverage FROM extended hemispheres and full disk TO extended hemispheres and full disk for GOES-E, GOES-W; West Pacific, East Indian, and West Atlantic Oceans

20. Describe the server that will connect to the ingest server at NCEI for submitting the data.

Physical Location: NOAA Center for Weather and Climate Prediction, College Park, MD
System Name: ESPC DDS
System Owner: NESDIS/OSPO
Additional Information:

21. What are the possible methods for submitting the data to NCEI? Select all that apply.

1. FTP PUSH

22. Identify how you would like NCEI to distribute the data. Web access support depends on the resources available for the dataset.

1. Advanced web services (e.g., THREDDS Catalog Service)

23. Will there be any distribution, usage, or other restrictions that apply to the data in the archive?

No known constraints apply to the data.

24. Discuss the rationale for archiving the dataset and the anticipated benefits. Mention any risks associated with not archiving the dataset at NCEI.

This archive request will ensure the critical products (insoluation and PAR) to continue being archived.

25. Are the data archived at another facility or are there plans to do so? Please explain.

No

26. Is there an existing agreement or requirement driving this request to archive? Have you already contacted someone at NCEI?

Continue to archive the insolution and PAR products from GSIP system.

27. Do you have a data management plan for your data?

No

28. Have funds been allocated to archive the data at NCEI?

No

29. Identify the affiliated research project, its sponsor, and any project/grant ID as applicable.

SPSRB #0905-0004, Upgrades in GOES Solar Radiation Product Suite for Coral Reef Watch Products submitted by Mark Eakin.

30. Is there a desired deadline for NCEI to archive and provide access to the data?

Archive by: 2030-06-30

Accessible by:

31. Add any other pertinent information for this request.

None